SUBMIT TO: AM107

2. SUBMIT EACH ABSTRACT TO ONE CONFERENCE ONLY:

Earth Observing Systems VII   William L. Barnes
(Conference Title)   (Conference Chair)

3. ABSTRACT TITLE:

Early Data Processing Experiences at the AIRS Team Leader Science Computing Facility

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5. PRESENTATION: Oral Presentation

6. BRIEF BIOGRAPHY:

Steven Friedman is Manager of the AIRS Science Processing System and Software Development Team at the Jet Propulsion Laboratory. The AIRS Science Processing Software Team is responsible for developing ground processing software for AIRS suite of instruments, AIRS, AMSU and HSB. Their primary software release will be made to the Distributed Active Archive Center at the Goddard Space Flight Center. Additionally, this team is developing a parallel data production facility at JPL to support testing of AIRS software and evaluation of AIRS data during the first year post launch. Mr. Friedman's most recent prior activities were in support of another EOS flight project, TES, also under development at the Jet Propulsion Laboratory.

7. ABSTRACT TEXT:

With the scheduled launch of AIRS/AMSU/HSB instruments on Aqua, the second Earth Observing System (EOS) platform, on March 24, 2002, JPL is prepared to support science data processing activities at two facilities, the Distributed Active Archive Center at the Goddard Space Flight Center and the AIRS Team Leader Science Computing Facility. Data processing and analysis activities will be centered at JPL initially, where the Science and Software Development Teams are poised to rapidly upgrade the ground processing code based on on-orbit experiences. This initial post-launch period poses many challenges for the AIRS software team including handling the large data load, response to on-orbit telemetry and calibration data, and release of upgraded ground-processing software. Post-launch experiences of the Terra data processing teams at JPL brought many surprises, both algorithmically and procedurally. While the AIRS Software and Science Teams have learned from these experiences, each new launch brings its own surprises. What happened during the first few months after launch? Were the Software and Science Teams ready to handle the data load and respond to on-orbit changes? Was the TLSCF facility capable of handling the data load? These topics are covered in this paper.

The Atmospheric Infrared Sounder (AIRS), a grating spectrometer designed to obtain high-resolution absorption spectra, and its companion instruments, the Advanced Microwave Sounding Unit (AMSU) and the Humidity Sounder for Brazil (HSB), will be used to investigate the thermodynamics of the atmosphere for improved weather prediction and analysis of climatological change.

8: Keywords:

AIRS, Aqua, EOS, DAAC, AMSU, HSB